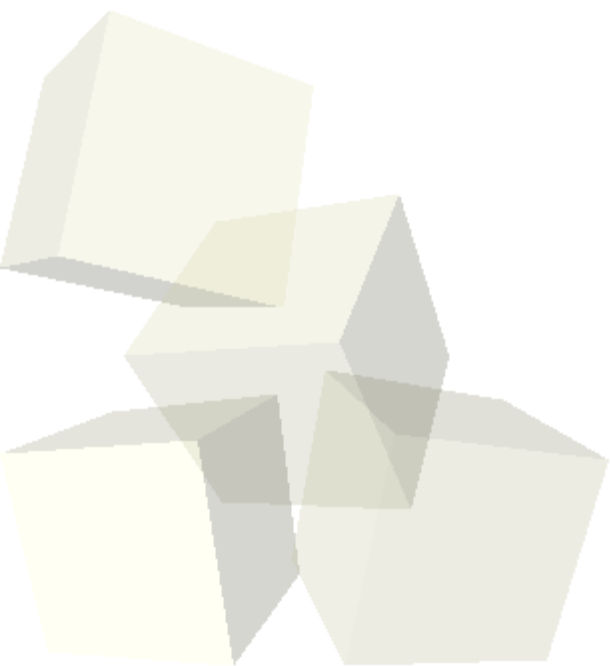# Report from the
Scientific Program Committee
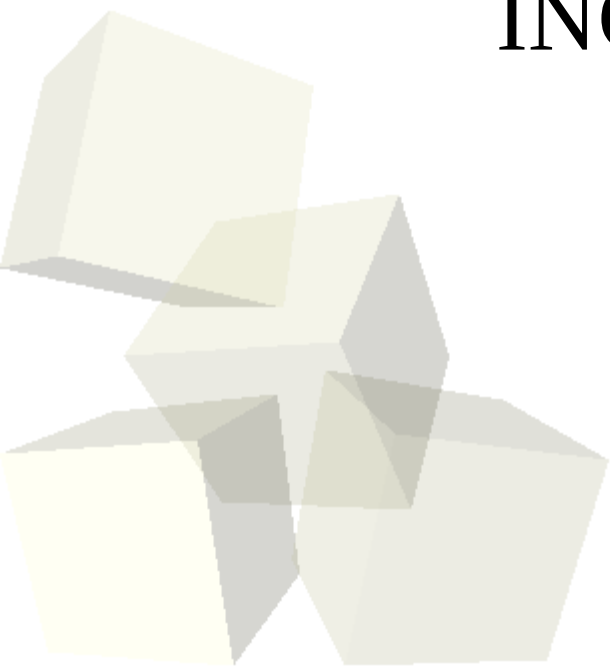
Frithjof Karsch
SPC Chair

Outline

- Allocation 2009-2010
- Resources 2010/11
- Requests 2010/11
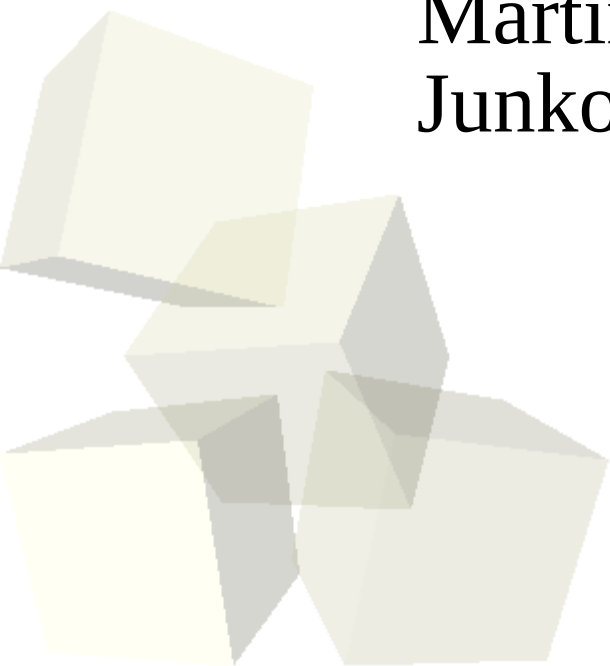 INCITE/cluster/QCDOC/GPU

Tom Blum
Simon Catterall (replaces Andreas Kronfeld)
Chris Dawson
Robert Edwards
Frithjof Karsch (chair)
Martin Savage
Junko Shigemitsu

The SPC advises the ExecCom

- The SPC suggests to the ExecCom allocations of computer time on the DOE-funded QCDOC and clusters at Fermilab&JLab as well as the usage of INCITE time

- The SPC advises the ExecCom which projects are suitable new USQCD project proposals, for usage of discretionary time on leadership-class machines, ...

- When additional resources become available, the SPC suggests redistributions/reallocations

2009/10 INCITE allocation

Cray XT4/XT5 at Oak Ridge (2010 allocation: 40 M core-h)

07/09-12/09: 10 M core-h $\simeq$ 5 M Jpsi core-h
01/10-06/10: 20 M core-h $\simeq$ 10 M Jpsi core-h

actually used: 114% + 2M core-h discretionary time

BlueGene/P at ALCF (2010 allocation: 67 M core-h)

07/09-06/10: 67 M core-h $\simeq$ 36.2 M Jpsi core-h

actually used: 130% in 2009 and 200% in 2010
(i.e. entire 2010 allocation was used up during Jan/Feb 2010)
+ about 90 M core-h discr. time in 2009

$\Rightarrow$ started 2010/11 allocation on BG/P already on March 22nd , 2010 (instead of April 1st , 2010) using discretionary time only

BG/P usage in 2009   **BG/P usage in 2010**

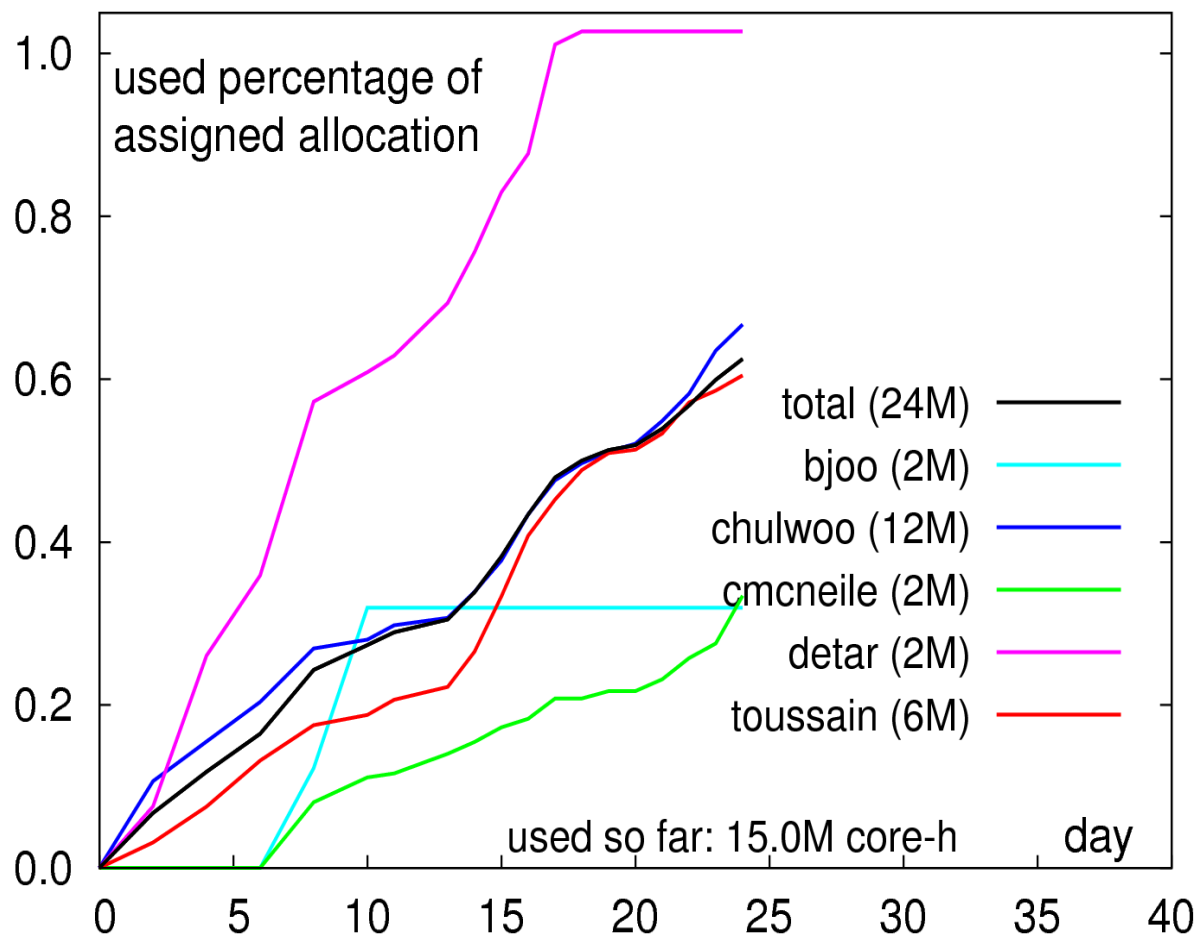| User	M core-h	%of total	allocation	M core-h	%of total	allocation
Osborn	0.26	0.3				
Chulwoo	25.327	28.8	29.565	34.775	43.0	20.315
Mawhinne				3.582	4.4	
Gottlieb	0.022					
Detar	15.743	17.9	14.020	11.964	14.8	4.020
Pochinsk	2.307	2.6	3.630			
Bjoo	2.913	3.3	1.425	9.965	12.3	1.425
Cmcneile	8.281	9.4	5.360	2.604	3.2	1.610
Ruthv	26.654	30.3	6.630	6.600	8.2	4.130
Tousain	0.278	0.3	0.185	3.461	4.3	0.185
Walkloud	6.072	6.9	6.185	7.962	9.8	1.185
-						

New allocation period 2010/11 started on BG/P already on 03/22/2010:
SPC allocated 24M BGP core-h for March/April 2010
BlueGene/P at ALCF discretionary time usage since 03/2010:

do get about 0.6M BGP core-h/day

==> expect about
    160M core-h in 2010

USQCD allocations 2009/2010

- **2009/10 allocation on USQCD hardware**

   19 type-A projects; 9 type-B projects

- allocated 67.8M 6n-node hours $\simeq$ 135.6M Jpsi core-hours

- – this included already the expected increase due to first half of the new, ARRA funded, machine at JLab (9q)

- 9g: 200 GPUs allocated in friendly user mode, starting 02/2010

   – received 9 LoI, gave access to 9g for all suggested projects

- Allocations in Jpsi equivalent node-hours
- increased upper limit for type-B proposals by a factor 2; to 2M Jpsi equivalent core-hours (*)

- INCITE: 28.1 M (07-12 /2010 only)

- QCDOC: 10.6 M (07-12 /2010 only)*

- cluster: 142.8 M*

- GPUs: 1440K GPU-hours

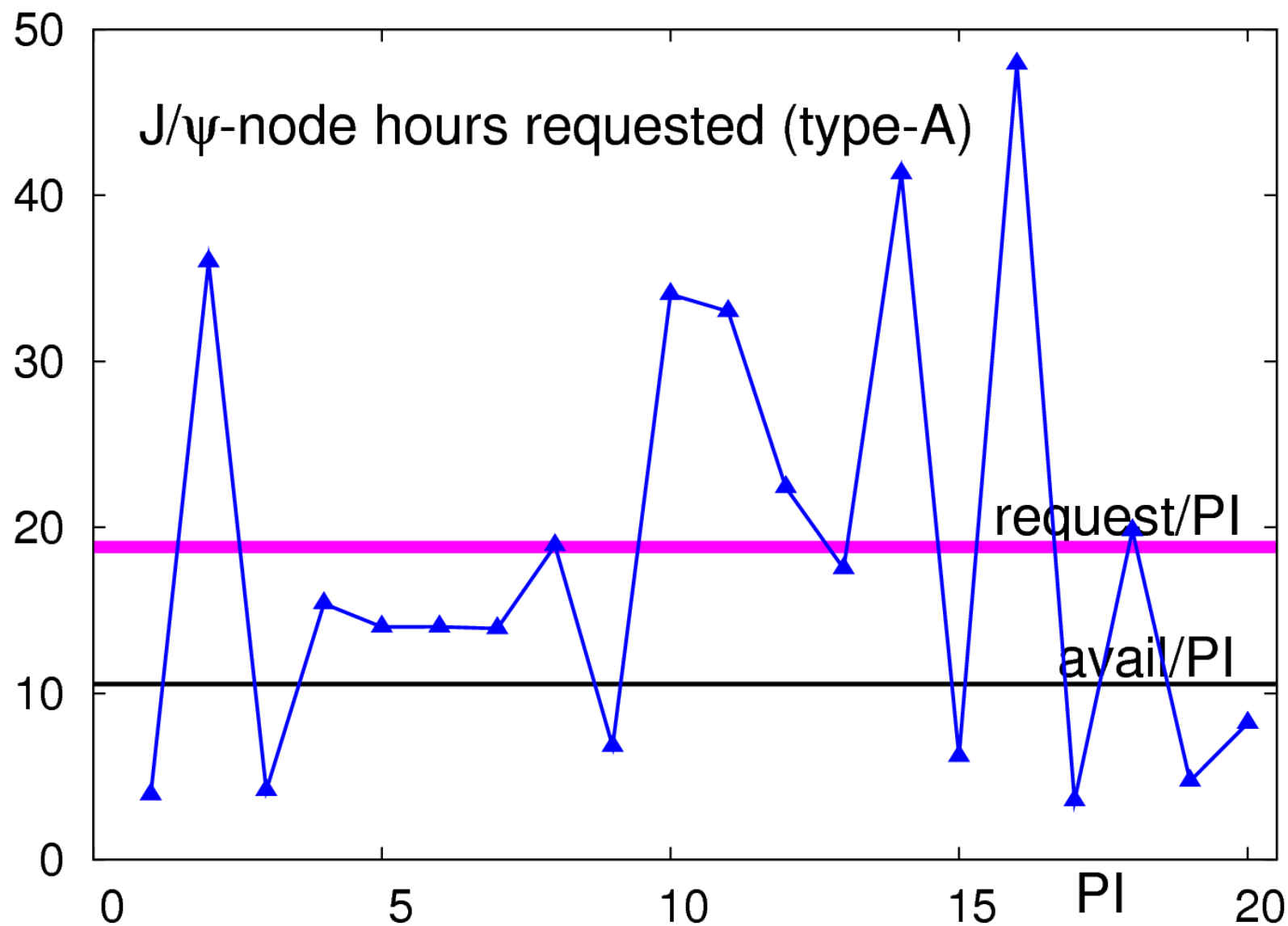+ 4.0M storage

- 20 type-A; 10 type-B; 8 GPU proposals
  (09/10: 19 type-A; 9 type-B)

- type-A proposals: 5 INCITE
  2 INCITE+USQCD
  9 (mainly) cluster
- 4 GPU+cluster
- type-B proposals: request 11.7%
  of available time

- cluster: request 185% of available time
- GPUs: request 197% of available time
- INCITE: request (182+X)% of (not)available time
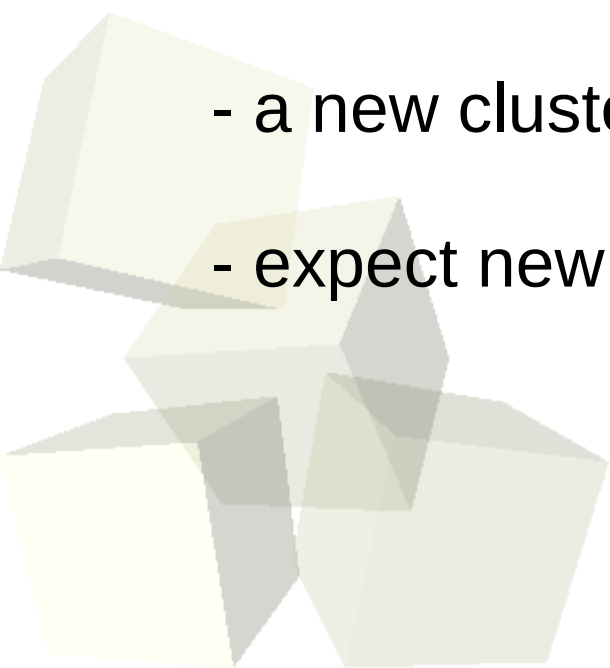
J/ψ-node hours requested (type-A)

- second half of the ARRA cluster will arrive at JLab:

  adds about 25 M Jpsi core-h (already anticipated
  in our call for proposals as a 10% increase)

- GPU cluster will be upgraded at JLab as early as
  July 2010
                        adds about 1500K GPU-hours

- a new cluster will be installed at FNAL

- expect new resources from next INCITE proposal

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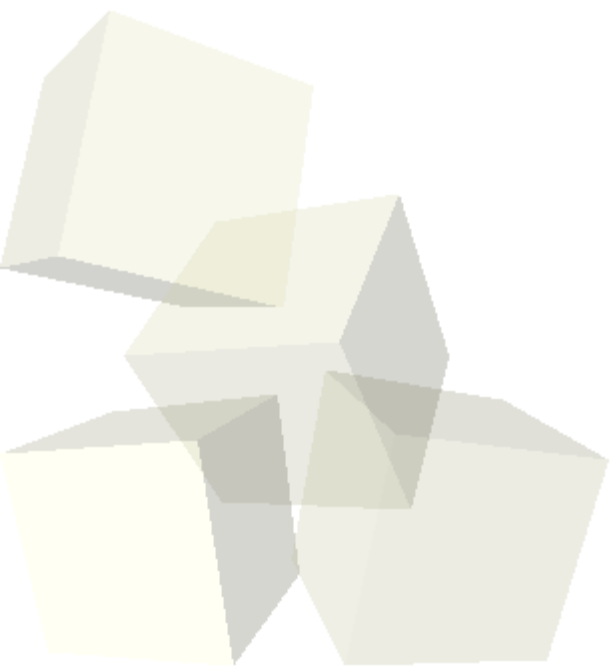
Should we adjust USCQD allocation period to annual INCITE cycle ?

14

Request is significantly larger than last year:

requested about 5.2 M J/psi equivalent core-h

planned to allocate 4 M J/psi equivalent core-h

Two roundtable sessions

- Today:
  hardware, software, experience with GPUs, ...

- Saturday:
  Next INCITE proposal,
  early science time on BlueGene/Q

- whatever issues you come up with